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10/673,360	09/30/2003	Noriyuki Sai	Q77773	4355

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/673,360	SAI ET AL.	
	Examiner	Art Unit	
	Hilina S. Kassa	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/24/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 8, 10-11, 14-17 and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Fresk et al. (Patent Number 6,618,161 B1).

(1) regarding claim 1:

As shown in 1, Fresk et al. disclose a printing apparatus (1, figure 1) comprising:

a scanner unit for reading an image in an original (3, figure 1; column 2, lines 55-58; note that the scanner unit is used to receive or read images);

an instruction unit for receiving an instruction from a user and instructing operation of reading said image with said scanner unit (6, figure 1; column 2, line 65-column 3, line 2; note that user interface is used to pass instructions to the scanner); and

a printer unit for printing said image that has been read on a medium (2, figure 1; column 3, lines 3-9; note that the printing unit prints the scanned image on media),

wherein each reading operation with said scanner unit is started by receiving an instruction from the user with said instruction unit when the reading operation is to be performed with said scanner unit for a plurality of number of times (column 2, line 65-column 3, line 2; note that the user interface is configured to display the status of the scanner; also, the scanner reads or generates plurality of images as shown in column 2, lines 57-58) and a plurality of the images that have been read are to be printed in their respective predetermined positions on said medium (column 3, lines 5-9; note that the printer proceeds printing of the received scanned images).

(2) regarding claim 2:

Fresk et al. further disclose, a printing apparatus according to claim 1 wherein: said printing apparatus does not comprise an automatic paper supply device (column 2, lines 62-65; note that the scanner unit which is part of the printing apparatus, uses flatbed by placing individual pages upon flatbed image reception rather than using automatic document feeder).

(3) regarding claim 3:

Fresk et al. further disclose, a printing apparatus according to claim 1 wherein: before said scanner unit finishes the plurality of number of times of the reading operations, said printer unit starts printing, on said medium, the image that has already been read (column 6, lines 3-5; note that the printer begins to print and output the print jobs even before the scanner finishes of reading the last image).

(4) regarding claim 8:

Fresk et al. further disclose, a printing apparatus according to claim 3 wherein:

said printing apparatus allows the number of said images that are to be printed on said medium to be changed (column 6, lines14-18); and

a number of said images that are read before printing is started differs according to said number of said images that are to be printed on said medium (column 6, lines 27-32).

(5) regarding claim 10:

Fresk et al. further disclose, a printing apparatus according to claim 3 wherein: while said scanner unit is performing said reading operation, said printer unit starts printing the image in the original that is being read by that reading operation (column 6, lines 3-5, note that the printing unit starts printing as the scanner reads the images).

(6) regarding claim 11:

Fresk et al. further disclose, a printing apparatus wherein: said printer unit is capable of printing, on said medium, said images according to different print modes (column 5, lines 11-16; note that the digital signal processors adjust the different modes); and when said plurality of images that have been read are to be printed in their respective predetermined positions on said medium, said printer unit is capable of printing, on said medium, each of said images according to a different print mode

(column 5, line 65-column 6, line 2; note that the printer outputs the print job according to the desired modes).

(7) regarding claim 14:

Fresk et al. further disclose, a printing apparatus according to claim 11 wherein: said instruction unit has members for selecting the print modes, each said member being provided for each said print mode (column 5, lines 11-16); and said instruction unit receives said instruction from the user through said members (column 5, lines 31-40; note that user passes instructions about the different configuration via the interface unit).

(8) regarding claim 15:

Fresk et al. further disclose, a printing apparatus according to claim 1 wherein: said printer unit is capable of printing, on said medium, said images according to different print modes (column 5, line 65-column 6, line 2); and when said plurality of images that have been read are to be printed in their respective predetermined positions on said medium, said printer unit prints, on said medium, each of said images according to the same print mode (column 6, lines 3-14; note that the printer begin to output the specified page in the desired print mode, paper size, media).

(9) regarding claim 16:

Fresk et al. further disclose, a printing apparatus according to claim 1 wherein: said instruction unit selects the print mode for printing said images on said medium when it receives an instruction from the user (column 5, lines 41-48; note that user inputs the desired print mode).

(10) regarding claim 17:

Fresk et al. further disclose a printing apparatus according to claim 16 wherein: when said plurality of images that have been read are to be printed in their respective predetermined positions on said medium (column 6, lines 20-25), other images are printed on said medium according to the print mode that has been initially selected (25-32; note that when N-up copying is selected, the scanned images get send to the copier).

(11) regarding claim 21:

Fresk et al. further disclose, a printing apparatus according to claim 15 wherein: said instruction unit has members for selecting the print modes, each said member being provided for each said print mode (column 5, lines 41-48); and said instruction unit receives said instruction from the user through said members (column 5, lines 44-48).

(12) regarding claim 22:

Fresk et al. further disclose, a printing method comprising:

instructing a reading operation when an instruction is received from a user (column 2, line 65-column 3, line 2; note that user interface is used to pass instructions to the scanner);

reading an image in an original according to the instruction to perform said reading operation (column 2, lines 55-58; note that the scanner unit is used to receive or read images); and

printing said image that has been read on a medium (column 3, lines 3-9; note that the printing unit prints the scanned image on media),

wherein each reading operation is started by receiving an instruction from the user when said reading operation is to be performed for a plurality of number of times (column 2, line 65-column 3, line 2; note that the user interface is configured to display the status of the scanner; also, the scanner reads or generates plurality of images as shown in column 2, lines 57-58) and a plurality of the images that have been read are to be printed in their respective predetermined positions on said medium (column 3, lines 5-9; note that the printer proceeds printing of the received scanned images).

(13) regarding claim 23:

Fresk et al. further disclose, a printing apparatus comprising:

a scanner unit for reading an image in an original (column 2, lines 55-58; note that the scanner unit is used to receive or read images); and

a printer unit for printing said image that has been read on a medium (column 3, lines 3-9; note that the printing unit prints the scanned image on media),

wherein when the reading operation is to be performed with said scanner unit for a plurality of number of times (column 2, line 65-column 3, line 2; note that the user interface is configured to display the status of the scanner; also, the scanner reads or generates plurality of images as shown in column 2, lines 57-58) and a plurality of the images that have been read are to be printed in their respective predetermined positions on said medium (column 3, lines 5-9; note that the printer proceeds printing of the received scanned images),

said printer unit starts printing, on said medium, the image that has already been read before said scanner unit finishes the plurality of number of times of the reading operations (column 6, lines 3-5; note that the printer begins to print and output the print jobs even before the scanner finishes of reading the last image).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 4-5, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fresk et al. (US Patent Number 6,618,161 B1) as applied to claim 1 above, and further in view of Kamano et al. (US Patent Number 6,375,319 B1).

(1) regarding claim 4:

Fresk et al. disclose all of the subject matter as described as above except for specifically teaching said printer unit: carries said medium intermittently and performs printing on said medium between the intermittent carries; brings the intermittent carrying into a standby state before printing of said image that has already been read is finished; and restarts said intermittent carrying after the next reading operation is started; and carries said medium maintaining a carry amount of said medium constant before and after said standby state.

However, Kamano et al. disclose a printing apparatus (figure 1) said printer unit:

carries said medium intermittently and performs printing on said medium between the intermittent carries (column 3, lines 19-23; column 4, lines 30-38; note that the rotary drum carries the medium in a specific interval for printing);

brings the intermittent carrying into a standby state before printing of said image that has already been read is finished (column 4, lines 35-44; note that before printing the rotary drum winds up the medium);

restarts said intermittent carrying after the next reading operation is started; and carries said medium maintaining a carry amount of said medium constant before and after said standby state (column 4, lines 38-44; note that the rotary drum takes constant time to wind up the medium before and after printing).

Fresk et al. and Kamaon et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a media carrying means in order to gain constant interval

as the printer proceeds processing the job. The suggestion/motivation for doing so would have been in order to prevent from incorrect alignment between dots of the color inks (column 1, lines 46-50). Therefore, it would have been obvious to combine Fresk et al. and Kamaon et al. to obtain the invention as specified in claim 4.

(2) regarding claim 5:

Fresk et al. disclose all of the subject matter as described as above except for specifically teaching said printer unit has a plurality of nozzles that move; and when said plurality of nozzles move after said next reading operation is started, a portion of said image that has been read before said standby state and a portion of said image that has been read after said standby state are printed on said medium by said plurality of nozzles.

However, Kamano et al. teach a printing apparatus according to claim 4 wherein: said printer unit has a plurality of nozzles that move (column 3, lines 46-50); and when said plurality of nozzles move after said next reading operation is started (column 3, lines 50-56; note that the plurality of nozzles move along the axial direction of the rotary drum), a portion of said image that has been read before said standby state and a portion of said image that has been read after said standby state are printed on said medium by said plurality of nozzles (column 4, lines 24-30, lines 38-44; note that the nozzles move along the rotary drum which holds the medium).

Fresk et al. and Kamaon et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of

ordinary skill in the art to have plurality of nozzles that move in direction. The suggestion/motivation for doing so would have been in order to achieve compatibility between the rotary drum and to print the image with better quality (column 1, lines 61-64). Therefore, it would have been obvious to combine Fresk et al. and Kamaon et al. to obtain the invention as specified in claim 5.

(3) regarding claim 7:

Fresk et al. further disclose, a printing apparatus according to claim 3 wherein: said printer unit performs printing until printing of said image that has already been read is finished (column 6, lines 5-8; note that the plurality of scanned images get printed).

Fresk et al. discloses all of the subject matter as described as above except for specifically teaching said printer unit carries said medium intermittently and performs printing on said medium between the intermittent carries; and if the next reading operation has not started when printing of said image that has already been read is finished, said printer unit brings the intermittent carrying into a standby state until said next reading operation is started.

However, Kamano et al. teach wherein said printer unit carries said medium intermittently and performs printing on said medium between the intermittent carries (column 3, lines 19-23; column 4, lines 30-38; note that the rotary drum carries the medium in a specific interval for printing); and if the next reading operation has not started when printing of said image that has already been read is finished, said printer unit brings the intermittent carrying into a standby state until said next reading operation

is started (column 4, lines 38-44; note that the rotary drum takes constant time to wind up the medium before and after printing).

Fresk et al. and Kamaon et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a media carrying means in order to gain constant interval as the printer proceeds processing the job. The suggestion/motivation for doing so would have been in order to prevent from incorrect alignment between dots of the color inks (column 1, lines 46-50). Therefore, it would have been obvious to combine Fresk et al. and Kamaon et al. to obtain the invention as specified in claim 7.

(4) regarding claim 9:

Fresk et al. further disclose said printer unit starts printing after said scanner unit performs said reading operation for all of said images that are arranged along said moving direction (column 2, lines 55-59).

Fresk et al. discloses all of the subject matter as described as above except for specifically teaching said printer unit has nozzles that move in a moving direction.

However, Kamano et al. teach the printing apparatus wherein said printer unit has nozzles that move in a moving direction (column 4, lines 24-30, lines 38-44; note that the nozzles move along the rotary drum which holds the medium).

Fresk et al. and Kamaon et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have nozzles that move in a moving direction. The

suggestion/motivation for doing so would have been in order to achieve compatibility between the rotary drum and to print the image with better quality (column 1, lines 61-64). Therefore, it would have been obvious to combine Fresk et al. and Kamaon et al. to obtain the invention as specified in claim 9.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fresk et al. (US Patent Number 6,618,161 B1) as applied to claim 1 above, and Kamano et al. (US Patent Number 6,375,319 B1), and further in view of Miyake et al. (US Patent Number 4,872,035)

(1) regarding claim 6:

Fresk et al. and Kamano et al. disclose all of the subject matter as described as above except for specifically teaching further a printing apparatus according to claim 4 wherein: when there is an instruction to stop printing during said standby state, said printer unit: finishes printing said image that has already been read; and discharges said medium.

However, Miyake et al. teaches an image forming apparatus wherein when there is an instruction to stop printing during said standby state (52, figure 5-3; column 5, lines 30-32), said printer unit: finishes printing said image that has already been read; and discharges said medium (column 5, lines 30-35; note that even if the stop key is pressed, the copier resumes printing after processing the cycle which already been scanned is executed).

Fresk et al., Kamano et al. and Miyake et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to process the scanned image even when the stop key is pressed in the copier. The suggestion/motivation for doing so would have been for advance reliability. Therefore, it would have been obvious to combine Fresk et al. and Kamano et al. with Miyake et al. to obtain the invention as specified in claim 6.

6. Claims 12-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fresk et al. (US Patent Number 6,618,161 B1) as applied to claim 1 above, and further in view of Fujii (Japanese Publication Number 2002-247382, see IDS).

(1) regarding claim 12:

Fresk et al. discloses all of the subject matter as described as above except for teaching wherein: said printer unit is capable of printing, on said medium, said images according to a monochrome print mode and a color print mode.

However, Fujii discloses wherein said printer unit is capable of printing, on said medium, said images according to a monochrome print mode and a color print mode (paragraph [0010], lines 1-8; note that the color or monochrome copy is utilized).

Fresk et al. and Fujii are combinable because they are from the same filed of endeavor. At the time of the invention, it would have been obvious to a person of

ordinary skill in the art to have monochrome and color print mode. The suggestion/motivation for doing so would have been in order to utilize efficient and versatile apparatus. Therefore, it would have been obvious to combine Fresk et al. with Fujii to obtain the invention as specified in claim 12.

(2) regarding claim 13:

Fresk et al. discloses all of the subject matter as described as above except for teaching wherein: said different print modes are quality modes that differ in print resolution.

However, Fujii discloses wherein said different print modes are quality modes that differ in print resolution (paragraph [0025], lines 1-6; note that the color picture data gets modified in the pixel value).

Fresk et al. and Fujii are combinable because they are from the same filed of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have quality modes that differ in print resolution. The suggestion/motivation for doing so would have been in order to acquire better quality and versatility (paragraph [0003], lines 3-6). Therefore, it would have been obvious to combine Fresk et al. with Fujii to obtain the invention as specified in claim 13.

(3) regarding claim 18:

Fresk et al. discloses all of the subject matter as described as above except for teaching an error notification device that provides notification of an error, wherein said

notification device provides notification of an error if a print mode that is different from initially selected print mode is selected when the reading operation is performed for a second time and thereafter.

However, Fujii discloses an error notification device that provides notification of an error (paragraph [0019], lines 5-9; note that the judging section is considered as the error notification as it judges the color selection), wherein said notification device provides notification of an error if a print mode that is different from initially selected print mode is selected when the reading operation is performed for a second time and thereafter (paragraph [0006], lines 6-17; note that the judging means analyzes the color modes of the printer).

Fresk et al. and Fujii are combinable because they are from the same filed of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a notification or judging means when the print mode is different from the initially selected print mode. The suggestion/motivation for doing so would have been in order to advance the quality of copier (paragraph [0004], lines 4-6). Therefore, it would have been obvious to combine Fresk et al. with Fujii to obtain the invention as specified in claim 18.

(4) regarding claim 19:

Fresk et al. discloses all of the subject matter as described as above except for teaching wherein said display device displays information about the initially selected print mode when the reading operation is performed for a second time and thereafter.

However, Fujii discloses wherein said display device displays information about the initially selected print mode when the reading operation is performed for a second time and thereafter (paragraph [0021] – paragraph [0022], line 6; note that the display panel displays information or modes that have been selected by user).

Fresk et al. and Fujii are combinable because they are from the same filed of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a display device that displays information about the initially selected print mode. The suggestion/motivation for doing so would have been for the user to efficiently mange the selected modes. Therefore, it would have been obvious to combine Fresk et al. with Fujii to obtain the invention as specified in claim 19.

(5) regarding claim 20:

Fresk et al. discloses all of the subject matter as described as above except for teaching wherein the same print mode as the initially selected print mode is selected regardless of the print mode selected when the reading operation is performed for a second time and thereafter.

However, Fujii discloses wherein the same print mode as the initially selected print mode is selected regardless of the print mode selected when the reading operation is performed for a second time and thereafter (paragraph [0040], lines 1-6; note that once the copy mode is selected to color, it will initiate the color mode).

Fresk et al. and Fujii are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of

ordinary skill in the art to set the print mode regardless of the print mode selected when the reading operation is performed for a second time. The suggestion/motivation for doing so would have been in order not to select the previously stated mode frequently. Therefore, it would have been obvious to combine Fresk et al. with Fujii to obtain the invention as specified in claim 20.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Johnson et al. (US Patent Number 6,563,598 B1) disclose a multi-function printer device is configured for use with job control sheets having machine-readable indicia thereon.

Ueda (US Patent Number 6,407,822 B1) discloses an image input-output apparatus capable of a copy mode operation for printing image data, read by an image reader unit.

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb could be reached at (571) 272- 7406.

Any response to this action should be mailed to:

Commissioner of Patent and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Hilina Kassa

August 16, 2007